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Regulations and Non-Regulatory Revisions to State Implementation Plan: Iowa

Atlantic Environmental Associates, Inc.
Waltham, MA

Prepared for

Environmental Protection Agency
Research Triangle Park, NC

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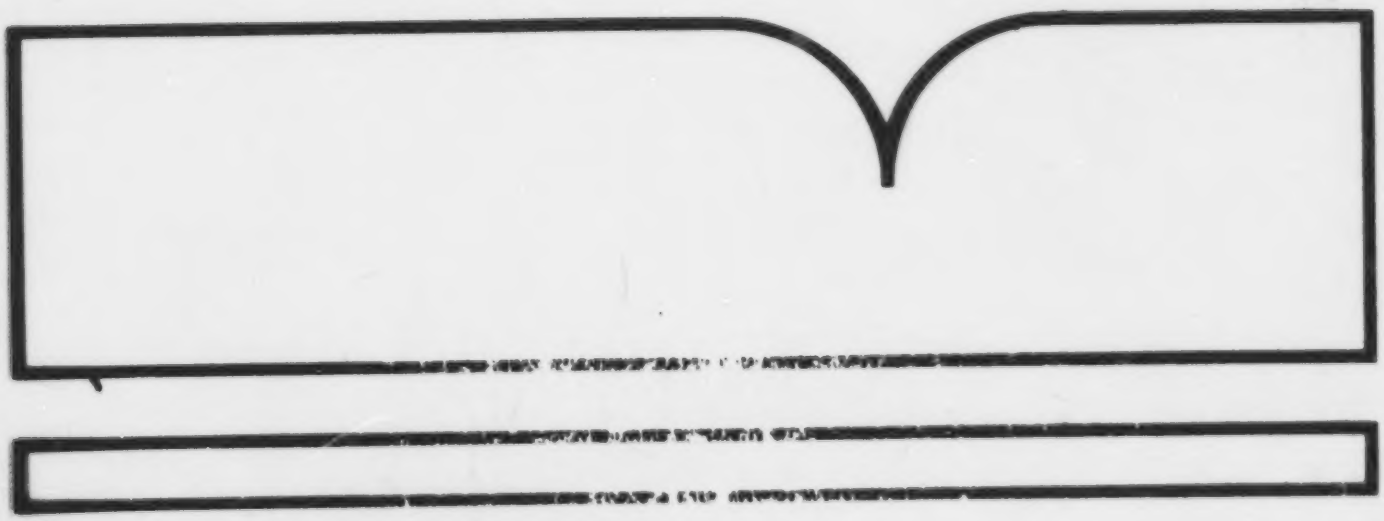

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EPA

Regulations and Non-Regulatory Revisions to State Implementation Plan: Iowa

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EPA-450/2-81-035

Regulations and Non-Regulatory Revisions to State Implementation Plan: Iowa

By

Atlantic Environmental Associates, Inc.
59 Vernon Street
Waltham, MA 02154

Contract No. 68-02-3565

EPA Project Officer: Willis P. Beal

Prepared for

U.S ENVIRONMENTAL PROTECTION AGENCY
Control Programs Development Division
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

July 1981

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16. ABSTRACT

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA-approved State and/or local air pollution control regulations cited by reference in the Federal Register; regulations promulgated as of August 1, 1981 have been included in this document.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979. State and/or local air quality regulations which have not been Federally approved as of August 1, 1981, are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations. A summary sheet of the regulatory revisions is provided to give a quick historical assessment of the changes.

The second part of the document contains the text of non-regulatory SIP revisions approved by EPA up to August 1, 1981, excluding notices or certifications of public hearings and technical support data. A complete tabulation of these revisions is also provided.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
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PREFACE

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA approved State and/or local air pollution control regulations cited by reference in the Federal Register; all regulations Federally promulgated as of August 1, 1981 have been included.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979.* State and/or local air quality regulations which have not been Federally approved as of August 1, 1981 are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State or local agencies to enforce such regulations.

This document is not intended to provide a tool for determining the enforceability of any given regulation. Rather, it is intended to provide a comprehensive compilation of those regulations which are incorporated by reference into Title 40, Part 52, of the Code of Federal Regulations (CFR). The exclusion of a Federally approved regulation from this document does not diminish the enforceability of the regulation. Similarly, the inclusion of a given regulation in this document does not, in itself, render the regulation enforceable by either the State or EPA.

The regulations have been organized in this document according to the official State/local agency format. However, since State air quality regulations vary widely in their organization, content, and language, a standardized subject index has been added. The index listings consist of both pollutant and activity oriented categories to facilitate usage. For example, regulations which apply to copper smelters may be found under sulfur compounds (50.2), particulate matter process weight (50.1.1), or copper smelters (51.15). Federal regulations pertaining to a given State are not included herein but can be found under Title 40 Code of Federal Regulations, Part 52.

Additionally, a summary sheet of the regulatory revisions is included to provide a quick historical assessment of the changes. These summary sheets contain the date of submittal to EPA of each revision and the Federal Register publication date on which the revision was approved by EPA. A brief description of the regulation which was submitted is also included.

In accordance with the Act, the second part of the document contains non-regulatory SIP revisions approved by EPA up to August 1, 1981. All approved non-regulatory revisions listed under Identification of Plan in the CFR are included except notices or certifications of public hearings, and technical support data. Non-regulatory submittals which have only received EPA approval on selected elements are included in their entirety with an accompanying indication of the status of Federal actions on the non-approved elements. The non-regulatory revisions have been organized in this document

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* Regulations and Non-Regulatory Revisions to State Implementation Plan: Iowa, EPA-450/2-80-022, prepared under Contract 68-02-3388, July 31, 1980.

according to the date of publication of EPA approval in the Federal Register. For historical completeness, a complete tabulation of these revisions is provided at the beginning of this second section.

SUMMARY OF
EPA-APPROVED REGULATORY REVISIONS TO STATE OF IOWA SIP
BETWEEN JULY 1, 1979 AND JULY 31, 1981

Publication of Approval	Submittal Date	Page	Document Description
03/06/80	06/22/79	45FR14567	Rule for the control of Fugitive Dust From Traditional Sources. Rule for Emission Offset Policy.
03/20/81	08/19/80	46FR17779	Rule 400-10 (4558) is amended.
04/17/81	04/18/80	46FR22368	Amended rule 4.3(2) relating to fugitive dust, rule 3.5 relating to particulate matter offsets.
04/17/81	06/09/76	46FR22368	Correction to the State Approval of Rule 3.2, which was inadvertantly omitted in the 06/01/77 rulemaking.

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IOWA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY COMMISSION

RULES AND REGULATIONS RELATING TO
AIR POLLUTION CONTROL

CHAPTER 1
DEFINITIONS

1.1 (136B) General.

1. Meaning. For the purpose of these rules and regulations, the following terms shall have the meaning indicated in this chapter. The definitions set out in Section 136B.2, Code of Iowa, 1971, shall be considered to be incorporated verbatim in these rules.

2. Scope. No attempt is made to define ordinary words which are used in accordance with their established dictionary meanings, except where the context otherwise requires and it is necessary to define the meaning as used in these rules and regulations to avoid misunderstanding.

1.2 (455B) Definition of terms.

1. Air pollution alert. That action condition declared when the concentrations of air contaminants reach the level at which the first stage control actions are to begin.

2. Air pollution emergency. That action condition declared when the air quality is continuing to degrade to a level that should never be reached, and that the most stringent control actions are necessary.

3. Air pollution episode. A combination of forecast or actual meteorological conditions and emissions of air contaminants which may or do present an imminent and substantial endangerment to the health of persons, during which the chief meteorological factors are the absence of winds that disperse air contaminants horizontally and a stable atmospheric layer which tends to inhibit vertical mixing through relatively deep layers.

4. Air pollution forecast. An air stagnation advisory issued to the department, the commission, and to appropriate air pollution control agencies by an authorized Air Stagnation Advisory Office of the National Weather Service predicting that meteorological conditions conducive to an air pollution episode may be imminent.

This advisory may be followed by a prediction of the duration and termination of such meteorological conditions.

5. Air pollution warning. That action condition declared when the air quality is continuing to degrade from the levels classified as an air pollution alert, and where control actions in addition to those conducted under an air pollution alert are necessary.

6. Air quality standard. An allowable level of air contaminant or atmospheric air concentration established by the commission.

7. ASME. The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York 10017.

8. ASTM. The American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

9. Auxiliary fuel firing equipment. Equipment to supply additional heat, by the combustion of an auxiliary fuel, for the purpose of attaining temperatures sufficient to dry and ignite the waste material, to maintain ignition thereof, and to promote complete combustion of combustible gases, solids and vapors.

10. Backyard burning. The disposal of residential waste by open burning on the premises of the property where such waste is generated.

11. BTU. British Thermal Unit, the quantity of heat required to raise the temperature of one pound of water from 59°F. to 60°F.

12. Carbonaceous fuel. Any form of combustible matter (whether solid, liquid, vapor or gas) consisting primarily of carbon-containing compounds in either fixed or volatile form, and which is burned primarily for its heat content.

13. Chimney or stack. Any flue, conduit or duct permitting the discharge or passage of air contaminants into the open air, or constructed or arranged for this purpose.

14. COH/1000 linear feet. Coefficient of haze per 1000 linear feet, which is a measure of the optical density of a filtered deposit of particulate matter as given in ASTM Standard D-1704-61, and indicated by the following formula:

$$\text{COH/1000 linear feet} = \frac{(\text{Area tape, ft}^2)(100{,}000)}{(\text{Volume of air sample, ft}^3)} \log \frac{100}{\%\ \text{transmission}}$$

15. Combustion for indirect heating. The combustion of fuel to produce usable heat that is to be transferred through a heat-conducting materials barrier or by a heat storage medium to a material to be heated so that the material being heated is not contacted by, and adds no substance to, the products of combustion.

16. Control equipment. Any equipment that has the function to prevent the formation of or the emission to the atmosphere of air contaminants from any fuel burning, incinerator or process equipment.

17. Criteria. Information used as guidelines for decisions when establishing air quality goals, air quality standards and the various air quality levels, and which in no case is to be confused or used interchangeably with air quality goals or standards.

18. Electric furnace. A furnace in which the melting and refining of metals are accomplished by means of electrical energy.

19. Emission standard. The maximum allowable discharge rate of any given air contaminant to the atmosphere as established by the commission.

20. Equipment. Equipment capable of emitting air contaminants to produce air pollution such as fuel burning, combustion or process devices or apparatus including but not limited to fuel burning equipment, refuse-burning equipment used for the burning of fuel or other combustible material from which the products of combustion are emitted; and including but not limited to apparatus, equipment or process devices which generate heat and may emit products of combustion, and manufacturing, chemical, metallurgical or mechanical apparatus or process devices which may emit smoke, particulate matter or other air contaminants.

21. Excess air. That amount of air supplied in addition to the theoretical quantity necessary for complete combustion of all fuel or combustible waste material present.

22. Executive Director. The Executive Director of the Department of Environmental Quality or his designee.

23. Existing equipment. Equipment, machines, devices or installations that are in operation prior to September 23, 1970.

24. Foundry cupola. A stack-type furnace used for melting of metals, consisting of, but not limited to the furnace proper, tuyeres, fans or blowers, tapping spout, charging equipment, gas cleaning devices and other auxiliaries.

25. Fugitive dust. Any airborne solid particulate matter emitted from any source other than a flue or stack.

26. Garbage. All solid and semisolid putrescible and nonputrescible animal and vegetable wastes resulting from the handling, preparing, cooking, storing and serving of food or of material intended for use as food, but excluding recognized industrial byproducts.

27. Gas cleaning device. A facility designed to remove air contaminants from gases exhausted from equipment as defined herein.

28. Goal. A level of air quality which is expected to be obtained.

29. Heating value. The heat released by combustion of one pound of waste or fuel measured in BTU on an as received basis. For solid fuels, the heating value shall be determined by use of ASTM Standard D2015-66.

30. Incinerator. A combustion apparatus designed for high temperature operation in which solid, semisolid, liquid or gaseous combustible refuse is ignited and burned efficiently, and from which the solid residues contain little or no combustible material.

31. Landscape waste. Any vegetable or plant wastes except garbage. The term includes trees, tree trimmings, branches, stumps, brush, weeds, leaves, grass, shrubbery and yard trimmings.

32. Level. A certain specified degree, quality or characteristic.

33. New equipment. Except for any equipment or modified equipment to which 4.1(2) applies, any equipment or control equipment not under construction or for which components have not been purchased on or before September 23, 1970, and any equipment which is altered or modified after such date, which may cause the emission of air contaminants or eliminate, reduce or control the emission of air contaminants.

34. Objectionable odor. An odor that is believed to be objectionable by 30 percent or more of a random sample of the people exposed to such odor, with the sample size of at least 30 people.

35. Objective. A certain specified degree, quality or characteristic expected to be attained.

36. Opacity. The degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

37. Open burning. Any burning of combustible materials where the products of combustion are emitted into the open air without passing through a chimney or stack.

38. Particulate matter. Any material, except uncombined water, that exists in a finely divided form as a liquid or solid at standard conditions.

39. Parts per million (PPM). A term which expresses the volumetric concentration of one material in one million unit volumes of a carrier material.

40. Plan documents. The reports, proposals, preliminary plans, survey and basis of design data, general and detail construction plans, profiles, specifications and all other information pertaining to equipment.

41. Privileged communication. Information other than air pollutant emissions data the release of which would tend to affect adversely the competitive position of the owner or operator of the equipment.

42. Process. Any action, operation or treatment, and all methods and forms of manufacturing or processing, that may emit smoke, particulate matter, gaseous matter or other air contaminant.

43. Process weight. The total weight of all materials introduced into any source operation. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not.

44. Process weight rate. For continuous or long-run steady-state source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof; or for a cyclical or batch source operation the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the number of hours of actual process operation during such a period. Where the nature of any process or operation, or the design of any equipment, is such as to permit more than one interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.

45. Refuse. Garbage, rubbish and all other putrescible and non-putrescible wastes, except sewage and water-carried trade wastes.

46. Residential waste. Any refuse generated on the premises as a result of residential activities. The term includes landscape wastes grown on the premises or deposited thereon by the elements, but excludes garbage, tires and trade wastes.

47. Ringelmann chart. The chart published and described in Information Circular 8333, Bureau of Mines, U. S. Department of Interior, and on which are illustrated graduated shades of gray to black for use in estimating the apparent density of smoke from combustion stacks.

48. Rubbish. All waste materials of nonputrescible nature.

49. Salvage operations. Any business, industry or trade engaged wholly or in part in salvaging or reclaiming any product or material, including, but not limited to, chemicals, drums, metals, motor vehicles or shipping containers.

50. Smoke. Gas-borne particles resulting from incomplete combustion, consisting predominantly, but not exclusively, of carbon, and other combustible material, or ash, that form a visible plume in the air.

51. Smoke monitor. A device using a light source and a light detector which can automatically measure and record the light-obscuring power of smoke at a specific location in the flue or stack of a source.

52. Source operation. The last operation preceding the emission of an air contaminant, and which results in the separation of the air contaminant from the process materials or in the conversion of the process materials into air contaminants, but is not an air pollution control operation.

53. Standard conditions. A gas temperature of 70°F and a gas pressure of 29.92 inches of mercury absolute.

54. Standard cubic foot (SCF). The volume of one cubic foot of gas at standard conditions.

55. Standard metropolitan statistical area (SMSA). An area which has at least one city with a population of at least 50,000 and such surrounding areas as geographically defined by the U.S. Bureau of the Budget.

56. Stationary source. Any building, structure, facility, or installation which emits or may emit any air pollutant.

57. Theoretical air. The exact amount of air required to supply the required oxygen for complete combustion of a given quantity of a specific fuel or waste.

58. Trade waste. Any refuse resulting from the prosecution of any trade, business, industry, commercial venture (including farming and ranching), or utility or service activity, and any governmental or institutional activity, whether or not for profit.

59. Variance. A temporary waiver from rules or standards governing the quality, nature, duration or extent of emissions granted by the commission for a specified period of time.

CHAPTER 2
COMPLIANCE

2.1 (455B) Compliance schedule.

1. New equipment. All new equipment and all new control equipment, as defined herein, installed in this state shall perform in conformance with applicable emission standards specified in chapter 4.

2. Existing equipment. All existing equipment, as defined herein, shall be operated in conformance with applicable emission standards specified in chapter 4 of these rules or as otherwise specified herein; except that the performance standards specified in subsection 4.1(2) shall not apply to existing equipment.

3. Emissions inventory. The person responsible for equipment as defined herein shall provide information on fuel use, materials processed, air contaminants emitted, estimated rate of emissions, periods of emissions or other air pollution information to the Executive Director upon his written request for use in compiling and maintaining an emissions inventory for evaluation of the air pollution situation in the state and its various parts. The information requested shall be submitted on forms supplied by the department. All information in regard to both actual and allowable emissions shall be public records and any publication of such data shall be limited to actual and allowable air contaminant emissions.

4. Confidentiality. No information supplied to the Executive Director shall be considered confidential unless a request for determination of confidentiality is submitted with the aforementioned information. The person requesting confidential treatment for information submitted to the department shall have the responsibility of demonstrating to the Executive Director that the information in question would disclose a trade secret or other privileged communication such as but not limited to production figures. The Executive Director shall provide written notification to any person whose request for confidentiality has been denied. Upon

receipt of such notification, the person shall have thirty days to appeal this decision to the commission. Such appeal shall be filed with the Executive Director. If the commission denies a request for confidentiality, the information in question shall be held confidential for sufficient time to allow the petitioner to institute the necessary legal proceedings to sustain the confidentiality claim. Information submitted with a request for confidential treatment shall be treated as confidential until final determination on such request. Information on trade secrets or other privileged communication will be so designated when submitted by the state to the federal government in accordance with federal law or regulation and will then be subject to applicable federal regulations as to confidentiality. The provisions of this subsection shall not apply to air contaminant emissions data.

5. Public availability of data. Emission data obtained from owners or operators of stationary sources under the provisions of section 2.1(3) will be correlated with applicable emission limitations and other control measures. All such emission data and correlations will be available during normal business hours at the quarters of the department. The Executive Director may designate one or more additional places where such data and correlations will be available for public inspection.

6. Maintenance of records. Each owner or operator of any stationary source, as defined herein, shall, upon notification from the Executive Director, maintain records of the nature and amounts of air contaminant emissions from such source and any other informations as may be deemed necessary by the commission to determine whether such source is in compliance with the applicable emission limitations or other control measures.

   a. The information recorded shall be summarized and reported monthly to the Executive Director on forms furnished by the department. The initial reporting period shall commence sixty days from the date the Executive Director issues notification of the record keeping requirements.

   b. Information recorded by the owner or operator and copies of the summarizing reports submitted to the Executive Director shall be retained by the owner or operator for two years after the date on which the pertinent report is submitted.

CHAPTER 3
CONTROLLING POLLUTION

3.1 (455B) Permits.

1. Permit required. Each person planning to construct, install, reconstruct or alter any equipment as defined in subrule 1.2(20), or related control equipment, as defined in subrule 1.2(16), shall obtain a permit for the proposed equipment or related control equipment from the department, prior to the initiation of construction, installation or alteration. Said permit will not be required if the alterations to the equipment will not change the emissions from that equipment.

   a. New equipment design concept review. If requested in writing, the Executive Director will review the design concepts of proposed new equipment and associated control equipment. The purpose of such a review would be to determine the acceptability of the location of the proposed equipment. If such a review is requested, the requestor shall supply the following information:

      1. Preliminary plans and specifications of such new equipment and control equipment.

      2. The exact site location and a plot plan of the immediate area, including the distance to and height of nearby buildings and the estimated location and elevation of the emission points.

      3. The estimated emission rates of any air contaminants which are to be considered.

      4. The estimated exhaust gas temperature, velocity at the point of discharge, and stack diameter at the point of discharge.

      5. An estimate of when construction would begin and when construction would be completed.

   b. Application for permit. Each application for a permit shall be submitted to the department on the form "Application for a Permit to Install or Alter Equipment or Control Equipment". Plans and specifications relating to the proposed equipment shall be submitted with the application for a permit.

   c. Preparation of plans. All plans and specifications for equipment and related control equipment, as defined herein, shall be prepared by or under the direct supervision of an engineer in conformance with chapter 114 of the Code.

d. Information required. The plans and specifications submitted shall include the following information:

1. The equipment or control equipment covered by the application;

2. The plot plan, including the distance and height for nearby buildings, and location and elevation of the emission points;

3. The composition of the effluent stream, both before and after any control equipment with estimates of emission rates, concentration, volume and temperature;

4. The physical and chemical characteristics of the air contaminants;

5. Any tests to be made of the completed installation by the owner;

6. The sampling holes, scaffolding, power sources for operation of appropriate sampling instruments and pertinent allied facilities for making tests to ascertain compliance, and

7. Any additional information as is deemed necessary by the department to determine compliance with these rules.

2. Processing of applications for permits. The department shall notify the applicant in writing of the issuance or denial of a permit as soon as practicable, at least within 60 days of the completed application for permit. If the application for permit is found by the department to be incomplete upon receipt, the applicant will be notified of that fact and of the specific deficiencies. Thirty days following such notification, the permit may be denied for lack of information. When this schedule would cause undue hardship to an applicant, or materially handicap this need for proceeding promptly with the proposed installation, modification or location, a request for priority consideration and the justification therefor shall be submitted to the department.

a. Issuing of permit. A permit shall be issued when the Executive Director concludes that the plans and specifications represent equipment which reasonably can be expected to comply with the emission standards and should not prevent the attainment or maintenance of the ambient air quality standards specified in these rules. A permit may be issued subject to conditions which shall be specified in writing.

1. Each permit shall specify the date on which it becomes void if work on the installation for which it was issued has not been initiated by that date.

2. Such permit is not transferable from one location to another, unless the equipment is portable, or from one piece of equipment to another.

3. If changes in the plans and specifications are proposed by the permittee or required by subparagraph (5) of this paragraph after a permit has been issued, another permit shall be obtained.

4. Each permit shall require the department to be notified at least ten days before the equipment or control equipment involved is placed in operation.

5. When portable equipment for which a permit has been issued is transferred from one location to another, the department shall be notified in writing at least thirty days prior to transferring to the new location. The owner or operator will be notified at least ten days prior to the scheduled relocation if said relocation will prevent the attainment or maintenance of ambient air quality standards and thus require a more stringent emission standard and the installation of additional control equipment. In such a case a permit shall be obtained prior to the initiation of construction, installation, or alteration of such additional control equipment.

6. Each permit shall specify that no review has been undertaken on the various engineering aspects of the equipment other than the potential of the equipment for reducing air contaminant emissions.

b. Denial of permit. When an application for a permit is denied, the applicant shall be notified in writing of the reasons therefor. Such a denial shall be without prejudice to the right of the applicant for filing a further application after revisions are made to meet the objectives specified as reasons for the denial.

3. Exemptions from permit requirements. The provisions of this rule shall not apply to the following items:

a. Fuel burning equipment for indirect heating and reheating furnaces using natural or liquefied petroleum gas or Number 2 fuel oil, with a capacity of less than 50 million BTU per hour input.

b. Fuel burning equipment for indirect heating with a capacity less than one million BTU per hour input when burning coal or oil.

c. Mobile internal combustion and jet engines, marine installations and locomotives.

d. Equipment used on farms and ranches for agricultural purposes, except equipment as listed in subrule 4.4(7).

e. Incinerators with a rated refuse burning capacity of less than 25 pounds per hour.

f. Fugitive dust controls unless a control efficiency can be assigned to the equipment or control equipment.

g. Equipment or control equipment which eliminates all emission to the atmosphere.

h. Equipment or control equipment which emits odors unless such equipment or control equipment also emits particulate matter, or any other air contaminant.

3.2 (136B) Variances.

1. Application for variances. A person may make application for a variance from applicable emission standards specified in Chapter 4 of these rules, or other provisions specified.

a. Contents. Each application for a variance shall be submitted to the Executive Director stating the following:

1. The name, address, and telephone number of the person submitting the application or, if such person is a legal entity, the name and address of the individual authorized to accept service of process on its behalf and the name of the person in charge of the premises where the pertinent activities are conducted.

2. The type of business or activity involved.

3. The nature of the operation or process involved; including information on the air contaminants emitted, the chemical and physical properties of such emissions, and the estimated amount and rate of discharge of such emissions.

4. The exact location of the operation or process involved.

5. The reason or reasons for considering that compliance with the provisions specified in these rules will produce serious hardship without equal or greater benefits to the public, and the reasons why no other reasonable method can be used for such operations without resulting in a hazard to health or property.

6. Each application shall bear the signature of the person making the application, following an affirmation that all statements are true and correct.

b. Variance extension. The request for extension of a variance shall be accompanied by an emission reduction program as specified in section 3.4 (455B).

2. Processing of applications. Each application for a variance and its supporting material shall be reviewed and an investigation of the facilities shall be made by the Department, for evaluation of whether or not the emissions involved will produce the following effects.

a. Endanger human health. Endanger or tend to endanger the health of persons residing in or otherwise occupying the area affected by said emissions.

b. Create safety hazards. Create or tend to create safety hazards, such as (but not limited to) interference with traffic due to reduced visibility.

c. Damage livestock or plant life. Damage or tend to damage any livestock harbored on, or any plant life on, property that is affected by said emissions and under other ownership.

d. Damage property. Damage or tend to damage any property on land that is affected by said emissions and under other ownership.

3. Recommendation for action. Upon completion of its investigation, the Department shall submit the findings and a recommendation for appropriate action to the Commission.

a. Granting of variance. The Commission shall grant a variance when it concludes that such action is appropriate. The variance may be granted subject to conditions specified by the Commission. The Commission shall specify such time intervals as are considered appropriate for submission of reports on the progress attained in the emission reduction program.

b. Denial of variance. The Commission shall deny a variance when it concludes that such action is appropriate. A denial shall be without prejudice to the right of the applicant to request a review hearing before the Commission.

c. Variance from new source performance standards not allowed. No variance shall be granted to a source to which 4.1(2) applies.

3.3 (136B) Letter of Intent

1. Contents. A letter of intent to file an emission reduction program submitted pursuant to these rules and regulations shall include information on the following items pertaining to each source operation.

a. Raw materials. The quantity and type of raw materials processed.

b. Emissions. An estimate of the quantity and type of emissions to the atmosphere.

c. Emission sources. A listing of those source operations which are considered major sources of air contaminant emissions.

d. Control equipment. A listing of the existing pollution control devices, and an estimate of their efficiency.

e. Anticipated problems. Comments regarding particular problems anticipated in reducing emissions.

f. Emission reduction program submission date. The date when a detailed air contaminant emission reduction program pertaining to each source operation will be submitted to the Department. Such date shall not be later than six (6) months after filing the letter of intent.

G. Additional information. Such additional information as may be required by the Commission.

3.4 (455B) Emission reduction program.

1. Content. An air contaminant emission reduction program submitted to the department pursuant to these rules shall include a schedule for the installation of pollution control devices or the replacement or alteration of specified facilities in such a way that emissions of air contaminants are reduced to comply with the emission standard specified in chapter 4 of these rules. The schedule must include, as a minimum, the following five increments of progress:

a. The date of submittal of the final control plan to the department.

b. The date by which contracts will be awarded for emission control systems or process modification or the date by which orders will be issued for the purchase of component parts to accomplish emission control or process modifications.

c. The date of initiation of on-site construction or installation of emission control equipment or process change.

d. The date by which on-site construction or installation of emission control equipment or process modification is to be completed.

e. The date by which final compliance is to be achieved.

2. Review. The department shall review all programs submitted, and shall make recommendations to the commission with respect to whether these programs are adequate and reasonable.

a. Commission action. Upon receiving the recommendation of the department, the commission may approve or disapprove such programs.

1. Upon approval of a program, a variance is granted for one year or until the final compliance date, whichever period is shorter. Emission reduction programs shall be reviewed annually by the commission and a variance extension granted for ongoing approved emission reduction programs which show satisfactory progress toward the elimination or prevention of air pollution. The commission may specify under what conditions and to what extent the variance or variance extension is granted.

2. If the department recommends disapproval of a program, the disapproval shall be without prejudice to the right of the applicant to request a review hearing before the commission and the applicant shall have a period of 30 days from date of notification by the commission in which to request a review hearing.

3. Failure to meet any increment of progress in the compliance schedule contained in an approved emission reduction program may result in the disapproval of the program and termination of the associated variance.

3. Reports. Each person responsible for an approved program shall make periodic written progress reports to the department, as specified by the department. The department shall make periodic reports to the commission on emission reduction programs submitted, and on the recommendations related to such programs.

400--3.5 (455B) Particulate matter emission offsets.

3.5(1) Definitions.

a. "Major stationary source" means any stationary air contaminant source which emits, or has the potential to emit, 100 tons per year or more of particulate matter.

b. "Major modification" means any physical change in or change in the method of operation of a major stationary source, or series of contemporaneous physical changes in the method of operation of a major stationary source, that would result in a significant net increase in that source's potential to emit particulate matter (or that would make the stationary source major (taking into account all accumulated net increases in potential emissions occurring at the stationary source including any initial construction since December 21, 1976).

1. A physical change shall not include routine maintenance, repair or replacement.

2. A change in the method of operation, unless previously limited by enforceable permit conditions, shall not include:

Use of an alternative fuel or raw material, if prior to December 21, 1976, the source was capable of accommodating such fuel or material;

Use of an alternative fuel or raw material by reason of an order in effect under sections 2(a) and (b) of the Energy Supply and Environmental Co-ordination Act of 1974 (or any superseding legislation), a prohibition under the Power Plant and Industrial Fuel Use Act of 1978 (or any superseding legislation), or by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act;

Use of alternative fuel by reason of an order or rule under section 125 of the Clean Air Act;

Change in ownership of the stationary source; or

Use of refuse derived fuel generated from municipal solid waste.

3. Changes are "contemporaneous" only if reductions occur after a notice that credit is to be taken for the reduction is filed with the department and before operation of the emission

unit or units that will result in emission increases. Also, to be "contemporaneous" all of the emission reductions must be completed and enforceable under the state plan before operation of the emission unit or units that will result in any emission increase. Where the new emission unit is a replacement for an emission unit that is being shut down in order to provide the necessary reductions, the reviewing authority may allow up to 180 days for shakedown of the new emission unit before the emission unit is required to cease operation.

4. For a series of changes in a stationary source to satisfy the requirement of "no net increase" all of the following must be satisfied:

   All reductions and all increases must be for particulate matter;

   The sum of all decreases must be greater than or equal to the sum of all increases; and

   On balance the air quality of the affected area must not be adversely impacted.

5. In performing the calculation in paragraph (4) (to determine whether the sum of all decreases is greater than or equal to the sum of all increases) the following rules shall apply:

   Subject to the following adjustments, the size of an increase or decrease is determined by the difference between the potential to emit of the changed emission unit before and after the change.

   If potential to emit for a changed emission unit was initially higher than allowable emissions, then no offset credit may be taken for decreasing potential to emit down to allowable emissions.

c. "Potential to emit" means the capability at maximum capacity to emit particulate matter after the application of air pollution control equipment. Annual potential shall be based on the maximum annual rated capacity of the stationary source assuming continuous year round operation. Enforceable permit conditions on the type or amount of materials combusted or processed may be used in determining the annual potential. Secondary emissions do not count in determining annual potential. (For a definition of "secondary emissions", see paragraph "e".) Fugitive

emissions also do not count, except with respect to the following stationary sources and then only to the extent quantifiable:

Coal cleaning plants;
Kraft pulp mills;
Portland cement plants;
Primary zinc smelters;
Iron and steel mill plants;
Primary aluminum ore reduction plants;
Primary copper smelters;
Municipal incinerators;
Hydrofluoric, sulfuric or nitric acid plants;
Petroleum refineries;
Lime plants;
Phosphate rock processing plants;
Coke oven batteries;
Sulfur recovery plants;
Carbon black plants;
Primary lead smelters;
Fuel conversion plants;
Sintering plants;
Secondary metal production plants;
Chemical process plants;
Fossil Fuel-fired boilers;
Petroleum storage and transfer units;
Taconite ore processing plants;
Glass fiber processing plants;
Charcoal production plants;
Fossil fuel-fired steam electric plants;

Any other stationary source category which, at the time of the applicability determination, is being regulated under section 111 or 112 of the Clean Air Act.

d. "Lowest achievable emission rate" means, for any source, that rate of emissions based on the following, whichever is more stringent:

1. The most stringent emission limitation which is contained in the implementation plan of any state for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or

2. The most stringent emission limitation which is achieved in practice by such class or category of source.

This term, applied to a modification, means the lowest achievable emission rate for the new or modified facilities within the stationary source.

In no event shall the application of this term permit a proposed new or modified facility to emit particulate matter in excess of the amount allowable under applicable new source standards of performance.

e. "Secondary emissions" means emissions which occur or could occur as a result of the construction or operation of a major stationary source or major modification, but do not necessarily come from the major stationary source or major modification itself. For purposes of this rule, secondary emissions must be specific and well defined, must be quantifiable, and must affect the same general nonattainment area as the stationary source or modification which causes the secondary emission. Secondary emissions may include, but are not limited to:

Emissions from barges or trains coming to and from the stationary source or modifications; and

Emissions from any off-site support source which would be constructed or would not otherwise increase its emissions.

3.5(2) Applicability.

a. Primary standard particulate matter nonattainment areas. If a major source or major modification is proposed to be constructed in an area designated nonattainment for a primary particulate matter standard in 40 CFR Section 81.316 then emission offsets must be achieved prior to startup.

If, after the permit is issued, the area is redesignated in 40 CFR Section 81.316 as attainment or unclassified and if the applicant can demonstrate that the major source or major modification will not cause a new violation, the executive director shall relieve the applicant of the obligation of implementing the offsets.

If a major source or major modification is proposed to be constructed in an area designated attainment or unclassified for particulate matter in 40 CFR Section 81.316, but the modeled (CRSTER, PTMPT or an appropriate optimum model) worst case ground level particulate concentrations due to the major source or major modification in a designated primary standard particulate matter nonattainment area is equal to or greater than five micrograms per cubic meter (twenty-four hour concentration), or one microgram per cubic meter (annual geometric mean), then emission offsets must be achieved prior to startup.

If, after the permit is issued, the area is redesignated in 40 CFR Section 81.316 as attainment or unclassified and if the applicant can demonstrate that the major source or major modification will not cause a new violation, the executive director shall relieve the applicant of the obligation of implementing the offsets.

b. Secondary standard particulate matter nonattainment areas. If a major source or major modification is proposed to be constructed in an area designated nonattainment for the secondary particulate matter standard in 40 CFR Section 81.316, emission offsets must be achieved prior to startup if the offsets are reasonably available. If a major source is proposed to be constructed in an area designated attainment or unclassified for particulate matter in 40 CFR Section 81.316, but the modeled (CRSTER, PTMPT or an appropriate optimum model) worst case ground level particulate matter concentrations due to the major source or major modification in a designated secondary standard particulate matter nonattainment area is equal to or greater than five micrograms per cubic meter(twenty-four hour concentration), emission offsets must be achieved prior to startup if the offsets are reasonably available.

If offsets are determined to be reasonably available, and if after the permit is issued, the area is redesignated in 40 CFR Section 81.316 as attainment or unclassified and if the applicant can demonstrate that the major source or major modification will not cause a new violation, the executive director shall relieve the applicant of the obligation of implementing the offsets.

c. Offsets are reasonably available if the owner or operator can reasonably achieve any of the reductions listed in 3.5(5), paragraphs "c" through "i" at the owner or operator's own major source.

3.5(3) Proposals for emission offsets or a demonstration that offsets are not reasonably available shall be submitted with the application for a permit for the major source or major modification. All approved emission offsets shall be made a part of the permit and shall be deemed a condition of expected performance of the major source or major modification.

3.5(4) Emission standard. If the emissions from the proposed major source or major modification must be offset under 3.5(2), or if the emissions would have to be offset if offsets were reasonably available, the emission rate for the major modification shall be the lowest achievable emission rate (LAER).

3.5(5) Acceptable emission offsets.

a. Equivalence. The effect of the reduction of particulate emissions must be measured or predicted to occur in the same area as the emissions of the major source or major modification. It can be assumed that, if the emission offsets are obtained from an existing source on the same premises or in the immediate vicinity of the major source or major modification and if the particulate matter disperses from substantially the same stack height, the emissions will be equivalent and may be offset. Otherwise, an adequate diffusion model must be used to predict the effect. If the reduction accomplished at the source is in accordance with the ratio of 3.5(5)"b" and if the effect of the reduction is measured or predicted to occur in the same area as the emissions of the major source or major modification, the effect of the reduction at the measured or predicted point does not have to exactly offset the effect of the major source of major modification.

b. Offset ratio. The ratio of emission offsets to the new emissions of a major source or major modification that affects a primary standard nonattainment area is at least 1.25:1; that is, for every ton of new particulate emissions, there shall be at least 1.25 tons of particulate emission offsets. For a major source or major modification that affects a secondary standard nonattainment area, the ratio must be greater that 1:1.

c. Control of uncontrolled existing sources. If control equipment is proposed for a presently uncontrolled existing source for which controls are not required by rules, then credit may be allowed for any reduction below the state implementation plan (SIP) allowable level. The reduction shall be proposed at the time of permit application. Any such reductions which occurred prior to January 1, 1978 shall not be accepted for offsets.

d. Greater control of existing sources. If more effective control equipment for a source already in compliance with the SIP allowable level is proposed to offset the emissions of the major source or major modification in or affecting a secondary standard nonattainment area, then the difference in the emissions between the actual level on January 1, 1978, and the new level can be credited for offsets.

For example, if a cyclone that is being used to meet a SIP emission standard is emitting x(1) lbs/hr and if it is to be replaced by a bag filter emitting x(2)

lbs/hr, an emission offset equal to [x(1) - x(2)] lbs/hr may be allowed toward the total required reduction.

e. Fugitive dust offsets. Credits may be allowed for permanent control of fugitive dust. EPA's "Technical Guidance for Control of Industrial Process Fugitive Particulate Emissions" (EPA-450/3-77-010, March 1977) shall be used as a guide to estimate reduction from fugitive dust control on traditional sources. Traditional source means a source category for which a particulate emission standard has been established in 4.1(2), 4.3(2)"a" or 4.3(2)"b" or 4.4 (455B). The emission factors shall be modified to reflect realistic reductions. This would correspond to a consideration of particles in the less than 3 micron size range and the effectiveness of the fugitive dust control method.

f. Fuel switching credits. Credit may be allowed for fuel switching provided there is a demonstration by the applicant that supplies of the cleaner fuel will be available to the applicant for a minimum of five years. The demonstration must include, as a minimun a written contract with the fuel supplier that the fuel will not be interrupted.

g. Reducing operating hours. If the emissions from a major source or major modification are proposed to be offset by reducing the operating times of another existing source, then credit may be allowed. The reduced operating hours shall be incorporated in the permit of the existing source as a condition of expected performance.

h. Derating of equipment. If the emissions from a major source or major modification are proposed to be offset by reducing the operating capacity of another existing source, then credit may be allowed for this provided proper documentation (such as stack test results) showing the effect on emission due to derating is submitted. The permit for the existing source must be amended to limit the operating capacity before offsets will be allowed.

i. Closing of existing sources or plant. Emission offsets may be allowed if it is proposed that a source or group of sources will be closed down to offset the new emissions. It is not necessary that the source shutdown before a permit is issued; however, the shutdown must occur prior to start-up of the new source. An allowance for an interim period when both new and old sources are operating (while the new source is being debugged) may be considered.

j. External emission offsets. If the emissions from the major source or major modification are proposed to be offset by reduction of emissions from a source not owned or operated by the owner or operator of the major source or major modification, then credit may be allowed for such reductions provided the external source's permit is amended to require the reduced emission or a consent order is entered into by the department and the existing source.

3.5(6) Banking of offsets in nonattainment areas. If the offsets in a given situation are more than required by 3.5(5)"b", the amount of offsets that is greater than required may be banked for the exclusive use or control of the person achieving the reduction. If the person achieving the reduction is not an individual, an authorized representative of the person must release control of the banked emissions in writing before another person can utilize the banked emissions.

3.5(7) Compliance of existing sources. If emission offsets are required, all sources owned or operated by the applicant (or by any entity controlling, controlled by, or under common control by the applicant) in Iowa shall be either in compliance with applicable emission standards or under a compliance schedule approved by the air quality commission.

CHAPTER 4
EMISSION STANDARDS FOR CONTAMINANTS

400--4.1 (455B) Emission standards.

1. In general. The federal standards of performance for new stationary sources (new source performance standards) shall be applicable as specified in 4.1(2). Compliance with emission standards specified elsewhere in this chapter shall be in accordance with chapter 2 of these rules. All standards in this chapter shall be considered as operation standards rather than design standards.

2. New source performance standards. The federal standards of performance for new stationary sources, 40 Code of Federal Regulations Part 60 as amended through December 31, 1975, shall apply to the following affected facilities as defined in said part.
   a. Fossil fuel-fired steam generators. A fossil fuel-fired steam generating unit of more than 250 million BTU heat input.
   b. Incinerators. An incinerator of more than 50 tons per day charging rate.
   c. Portland cement plants. Any of the following in a portland cement plant: kiln; clinker cooler; raw mill system; finish mill system; raw mill dryer; raw material storage; clinker storage; finished product storage; conveyor transfer points; bagging and bulk loading and unloading systems.
   d. Nitric acid plants. A nitric acid production unit.
   e. Sulfuric acid plants. A sulfuric acid production unit.
   f. Asphalt concrete plants. An asphalt concrete plant.
   g. Petroleum refineries. Any of the following at a petroleum refinery: fluid catalytic cracking unit catalyst regenerator; fluid catalytic cracking unit incinerator--waste heat boilers; and fuel gas combustion devices.
   h. Secondary lead smelters. Any of the following in a secondary lead smelter: pot furnaces of more than 250 kilograms (550 pounds) charging capacity; blast (cupola) furnaces; and reverberatory furnaces.
   i. Secondary brass and bronze ingot production plants. Any of the following at a secondary brass and bronze ingot production plant: reverberatory and electric furnaces of 1000/kilograms (2205 pounds) or greater production capacity and blast (cupola) furnaces of 250 kilograms per hour (550 pounds per hour) or greater production capacity.
   j. Iron and steel plants. A basic oxygen process furnace.

k. Sewage treatment plants. An incinerator which burns the sludge produced by municipal sewage treatment plants.

l. Steel plants. Either of the following at a steel plant: electric arc furnaces and dust-handling equipment.

4.2 (455B) Open burning.

1. Prohibition. No person shall allow, cause or permit open burning of combustible materials, except as provided in 4.4(2) and 4.2(3).

2. Variances from rules. Any person wishing to conduct open burning of materials not exempted in subsection 4.2(3) may make application for a variance as specified in 3.2(1) of these rules.

3. Exemptions. The following shall be permitted unless prohibited by local ordinances or regulations.

a. Disaster rubbish. The open burning of rubbish, including landscape waste, for the duration of the community disaster period in cases where an officially declared emergency condition exists.

b. Diseased trees. The open burning of diseased trees. However, when the burning of diseased trees causes a nuisance, the commission may take appropriate action to secure relocation of the burning operation. Rubber tires shall not be used to ignite diseased trees.

c. Flare stacks. The open burning or flaring of waste gases, providing such open burning or flaring is conducted in compliance with paragraphs 4.3(2)d and 4.3(3)d of these rules.

d. Landscape waste. The disposal by open burning of landscape waste originating on the premises. However, the burning of landscape waste produced in clearing, grubbing, and construction operations shall be limited to areas located at least one-fourth mile from any inhabited building. Rubber tires shall not be used to ignite landscape waste.

e. Recreational fires. Open fires for cooking, heating, recreation and ceremonies, provided they comply with paragraph 4.3(2)d of these rules.

f. Residential waste. Backyard burning of residential waste at dwellings of four-family units or less. The adoption of more restrictive ordinances or regulations of a governing body of the political subdivision, relating to control of backyard burning, shall not be precluded by these rules.

g. Training fires. Fires set for the purpose of bona fide training of public or industrial employees in fire fighting methods, provided that the Executive Director receives notice in writing at least one week before such action commences.

4.3 (455B) Specific contaminants.

1. General. The emission standards contained in this rule shall apply to each source operation unless a specific emission standard for the process involved is prescribed elsewhere in this chapter, in which case the specific standard shall apply.

2. Particulate matter. No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in chapter 5.

a. Process weight rate. The emission of particulate matter from any process shall not exceed the amount determined from Table 1 except as provided in 3.2(455B), 4.1(455B), 4.4(455B), and chapter 5. If the executive director determines that a process complying with the emission rates specified in Table I is causing or will cause air pollution in a specific area of the state, an emission standard of 0.1 grain per standard cubic foot of exhaust gas may be imposed.

b. Combustion for indirect heating. Emissions of particulate matter from the combustion of fuel for indirect heating or for power generation shall be limited by the ASME Standard APS-1, Second Edition, November, 1968, "Recommended Guide for the Control of Dust Emission--Combustion for Indirect Heat Exchangers". For the purpose of this paragraph, the allowable emissions shall be calculated from equation (15) in that standard, with

$$C_{o_{max}2} = 50 \text{ micrograms per cubic meter.}$$

Allowable emissions from a single stack may be estimated from Figure 1. The maximum ground level dust concentrations designated are above the background level. For plants with 4,000 million BTU/hour input, or more, the "a" factor shall be 1.0. In plants with less than 4,000 million BUT/hour input, appropriate "a" factors, less than 1.0 shall be applied. Pertinent correction factors, as specified in the standard, shall be applied for installations with multiple stacks.

1. Outside any standard metropolitan statistical area, the maximum allowable emissions from each stack serving existing equipment, irrespective of height, shall be 0.8 pounds of particulates per million BTU input.

2. Inside any standard metropolitan statistical area, the maximum allowable emission from each stack, irrespective of height, shall be 0.6 pounds of particulates per million BTU input.

3. In new equipment, the maximum allowable emissions from each stack, irrespective of height or location, shall be 0.6 pounds of particulates per million BTU input.

4. Measurements of emissions from a particulate source will be made in accordance with the provisions of chapter 7.

c. Fugitive dust.

1. Attainment and unclassified areas. No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in section 657.1 of the Code, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

a. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.

b. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.

c. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizer or limestone.

d. Covering, at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.

e. Prompt removal of earth or other material from paved streets on to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

2. Nonattainment areas. Subparagraph (1) notwithstanding, no person shall allow, cause or permit any visible emission of fugitive dust in a nonattainment area for suspended particulate matter to go beyond the lot line of the property on which a traditional source is located without taking reasonable precautions to prevent emission. Traditional source means a source category for which a particulate emission standard has been established in 4.1(2), 4.3(2)"a", 4.3(2)"b" or 4.4(455B) and includes a quarry operation, haul road or parking lot associated with a traditional source. This paragraph does not modify the emission standard stated in 4.1(2), 4.3(2)"a", 4.3(2)"b", Or 4.4(455B), but rather establishes a separate requirement for fugitive dust from such sources. This paragraph was effective January 1, 1980 in primary standard nonattainment areas. This paragraph is effective July 1, 1980 in secondary standard nonattainment areas, however a traditional source is in compliance with this paragraph if, by July 1, 1980 it is on a compliance schedule which has a compliance date no later than June 30,1981.

TABLE I
ALLOWABLE RATE OF EMISSION BASED ON
PROCESS WEIGHT RATE*

Process Weight Rate		Emission Rate	Process Weight Rate		Emission Rate
Lb/Hr	Tons/Hr	Lb/Hr	Lb/Hr	Tons/Hr	Lb/Hr
100	0.05	0.55	16,000	8.00	16.5
200	0.10	0.88	18,000	9.00	17.9
400	0.20	1.40	20,000	10,00	19.2
600	0.30	1.83	30,000	15.00	25.2
800	0.40	2.22	40,000	20.00	30.5
1,000	0.50	2.58	50,000	25.00	35.4
1,500	0.75	3.38	60,000	30.00	40.0
2,000	1.00	4.10	70,000	35.00	41.3
2,500	1.25	4.76	80,000	40.00	42.5
3,000	1.50	5.38	90,000	45.00	43.6
3,500	1.75	5.96	100,000	50.00	44.6
4,000	2.00	6.52	120,000	60.00	46.3
5,000	2.50	7.58	140,000	70.00	47.8
6,000	3.00	8.56	160,000	80.00	49.0
7,000	3.50	9.49	200,000	100.00	51.2
8,000	4.00	10.4	1,000,000	500.00	69.0
9,000	4.50	11.2	2,000,000	1,000.00	77.6
10,000	5.00	12.0	6,000,000	3,000.00	92.7

*Interpolation of the data in this table for process weight rates up to 60,000 lb/hr shall be accomplished by the use of the equation

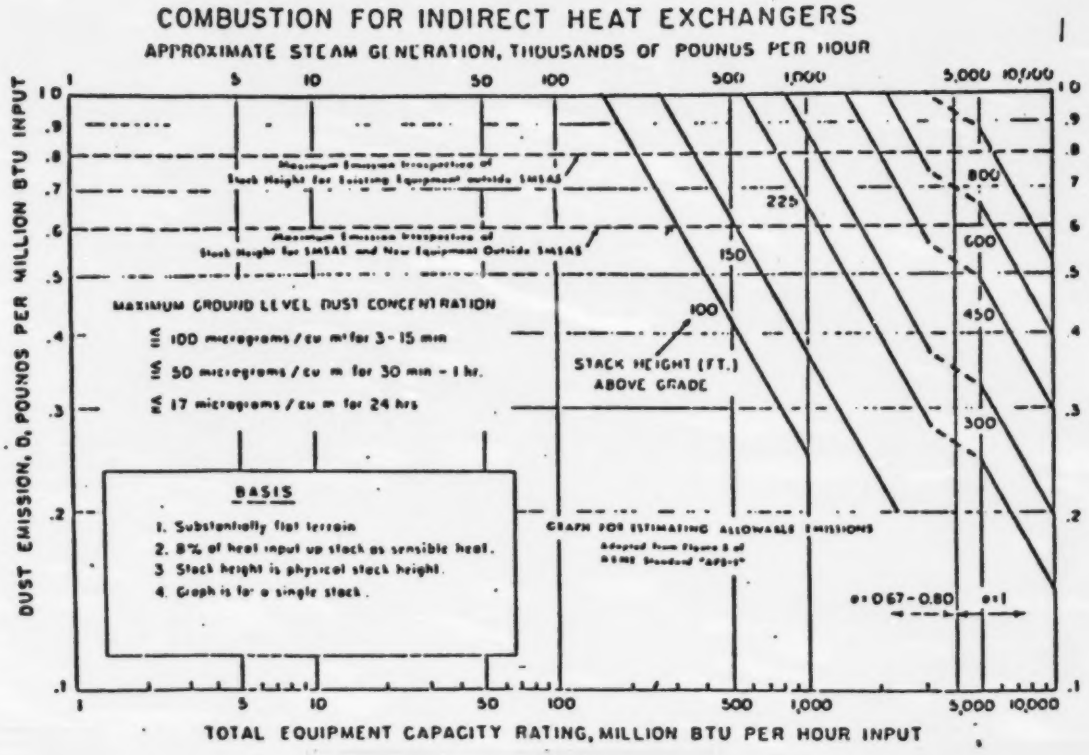
$$E = 4.10\ P^{0.67},$$

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lb/hr shall be accomplished by the use of the equation

$$E = 55.0\ P^{0.11} - 40$$

Where E = rate of emission in lb/hr, and
P = process weight in tons/hr

FIGURE 1



d. Visible emissions. No person shall allow, cause or permit the emission of visible air contaminants of a density or shade equal to or darker than that designated as Number 2 on the Ringelmann Chart, or 40 percent opacity, into the atmosphere from any equipment, internal combustion engine, premise fire, open fire or stack, except as provided below and in chapter 5 of these rules.

1. Residential heating equipment. Residential heating equipment serving dwellings of four family units or less is exempt.

2. Gasoline-powered vehicles. No person shall allow, cause or permit the emission of visible air contaminants from gasoline-powered motor vehicles for longer than five consecutive seconds.

3. Diesel-powered vehicles. No person shall allow, cause or permit the emission of visible air contaminants from diesel-powered motor vehicles of a shade or density equal to or darker than that designated as Number 2 on the Ringelmann Chart, or 40 percent opacity, for longer than five consecutive seconds.

4. Diesel-powered locomotives. No person shall allow, cause or permit the emission of visible air contaminants from diesel-powered locomotives of a shade or density equal to or darker than that designated as Number 2 on the Ringelmann Chart, or 40 percent opacity, except for a maximum period of 40 consecutive seconds during acceleration under load, or for a period of four consecutive minutes when a locomotive is loaded after a period of idling.

5. Startup and testing. Initial start and warmup of a cold engine, the testing of an engine for trouble, diagnosis or repair, or engine research and development activities, is exempt.

6. Uncombined water. The provisions of this paragraph shall apply to any emission which would be in violation of these provisions except for the presence of uncombined water, such as condensed water vapor.

3. Sulfur compounds. The provisions of this subrule shall apply to any installation from which sulfur compounds are emitted into the atmosphere.

a. Sulfur dioxide from use of fuels. After January 1, 1974, no person shall allow, cause, or permit the emission of sulfur dioxide into the atmosphere in an amount greater than six (6) pounds of sulfur dioxide, maximum two (2) hour average, per million British Thermal Units of heat input from any solid fuel-burning installation for any combination of fuels burned; nor the emission of sulfur dioxide into the atmosphere in an amount greater than two point zero (2.0) pounds of sulfur dioxide, maximum two (2) hour average, per million British Thermal Units of heat input from any liquid fuel-burning installation.

After January 1, 1975, no person shall allow, cause or permit the emission of sulfur dioxide into the atmosphere in an amount greater than five (5) pounds of sulfur dioxide, maximum two (2) hour average, per million British Thermal

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Units of heat input from any solid fuel-burning installation for any combination of fuels burned; nor the emission of sulfur dioxide into the atmosphere in an amount greater than one point five (1.5) pounds of sulfur dioxide, maximum two (2) hour average, per million British Thermal Units of heat input from any liquid fuel-burning installation.

b. Sulfur dioxide from sulfuric acid manufacture. After January 1, 1975, no person shall allow, cause, or permit the emission of sulfur dioxide from a sulfuric acid manufacturing plant in excess of six point five (6.5) pounds of sulfur dioxide, maximum two (2) hour average, per ton of product calculated as one hundred (100) percent sulfuric acid.

c. Sulfur dioxide from sulfuric acid manufacture. After January 1, 1975 no person shall allow, cause or permit the emission of sulfur dioxide from an existing sulfuric acid manufacturing plant in excess of 30 pounds of sulfur dioxide, maximum two-hour average, per ton of product calculated as 100 percent sulfuric acid.

d. Acid mist from sulfuric acid manufacture. After January 1, 1974, no person shall allow, cause or permit the emission of acid mist calculated as sulfuric acid from an existing sulfuric acid manufacturing plant in excess of 0.5 pounds, maximum two-hour average, per ton of product calculated as 100 percent sulfuric acid.

e. Other processes capable of emitting sulfur dioxide. After January 1, 1974, no person shall allow, cause or permit the emission of sulfur dioxide from any process, other than sulfuric acid manufacture, in excess of 500 parts per million, based on volume. This paragraph shall not apply to devices which have been installed for air pollution abatement purposes where it is demonstrated by the owner of the source that the ambient air quality standards are not being exceeded.

4.4 (136B) Specific Processes.

1. General. The emission standards specified in this section shall apply, and those specified in section 4.3 shall not apply, to each process of the types listed in the following subsections, except as provided in paragraph a, below.

a. Exception. Whenever the Executive Director determines that a process complying with the emission standard prescribed in this section is causing or will cause air pollution in a specific area of the state, the specific emission standard may be suspended and compliance with the provisions of section 4.3 may be required in such instance.

2. Asphalt batching plants. No person shall allow, cause, or permit the operation of an asphalt batching plant in a manner such that the particulate matter discharged to the atmosphere exceeds zero point one five (0.15) grain per standard cubic foot of exhaust gas.

3. Cement kilns. Cement kilns shall be equipped with air pollution control devices to reduce the particulate matter in the gas discharged to the atmosphere to no more than zero point three (0.3) percent of the particulate matter entering the air pollution control device. Regardless of the degree of efficiency of the air pollution control device, particulate matter discharged from such kilns shall not exceed one-tenth (0.1) grain per standard cubic foot of exhaust gas.

4. Cupolas for metallurgical melting. The emissions of particulate matter from all new foundry cupolas, and from all existing foundry cupolas with a process weight rate in excess of twenty thousand (20,000) pounds per hour, shall not exceed the amount determined from Table I of these rules and regulations, except as provided in Chapter 5 of these rules and regulations.

   a. Existing small cupolas. The emissions of particulate matter from all existing foundry cupolas with a process weight rate less than or equal to twenty thousand (20,000) pounds per hour shall not exceed the amount determined from Table II of these rules and regulations, except as provided in Chapter 5 of these rules and regulations.

TABLE II
ALLOWABLE EMISSIONS FROM EXISTING SMALL FOUNDRY CUPOLAS

Process weight rate (lb/hr)	Allowable Emission (lb/hr)
1,000	3.05
2,000	4.70
3,000	6.35
4,000	8.00
5,000	9.58
6,000	11.30
7,000	12.90
8,000	14.30
9,000	15.50
10,000	16.65
12,000	18.70
16,000	21.60
18,000	23.40
20,000	25.10

5. Electric furnaces for metallurgical melting. The emissions of particulate matter to the atmosphere from electric furnaces used for metallurgical melting shall not exceed zero point one (0.1) grain per standard cubic foot of exhaust gas.

7. Grain handling and processing plants. No person shall cause, allow or permit the operation of equipment at a permanent installation, for the handling or processing of grain, grain products and grain by-products such that the particulate matter discharged to the atmosphere exceeds 0.1 grain per standard cubic foot of exhaust gas.

8. Lime kilns. No person shall allow, cause, or permit the operation of a kiln for the processing of limestone such that the particulate matter in the gas discharged to the atmosphere exceeds zero point one (0.1) grain per standard cubic foot of exhaust gas.

9. Meat smokehouses. No person shall allow, cause, or permit the operation of a meat smokehouse, or a group of meat smokehouses, which consume more than ten (10) pounds of wood, sawdust, or other material per hour such that the particulate matter discharged to the atmosphere exceeds zero point two (0.2) grain per standard cubic foot of exhaust gas.

10. Phosphate processing plants. No person shall allow, cause, or permit the operation of equipment for the processing of phosphate ore, rock or other phosphatic material including, but not limited to, phosphoric acid in a manner that the unit emissions of fluoride exceed zero point four (0.4) pound of fluoride per ton of phosphorous pentoxide or its equivalent, but not more than one hundred (100) pounds per day.

    a. Allowable emissions. The allowable total emission of fluoride shall be calculated by multiplying the unit emission specified above by the expressed design production capacity of the process equipment.

11. Portland cement concrete batching plants. No person shall allow, cause, or permit the operation of a portland cement concrete batching plant such that the particulate matter discharged to the atmosphere exceeds zero point one (0.1) grain per standard cubic foot of exhaust gas.

12. Incinerators. No person shall allow, cause, or permit the operation of an incinerator unless provided with appropriate control of emissions of particulate matter, visible air contaminants, and objectionable odors.

a. Particulate matter. No person shall allow, cause, or permit the operation of an incinerator with a rated refuse burning capacity of one thousand (1,000) or more pounds per hour in a manner such that the particulate matter discharged into the atmosphere exceeds zero point two (0.2) grain per standard cubic foot of exhaust gas adjusted to twelve (12) percent carbon dioxide.

1. No person shall cause, allow, or permit the operation of an incinerator with a rated refuse burning capacity of less than one thousand (1,000) pounds per hour in a manner such that the particulate matter discharged to the atmosphere exceeds zero point three five (0.35) grain per standard cubic foot of exhaust gas adjusted to twelve (12) percent carbon dioxide.

b. Visible emissions. No person shall allow, cause, or permit the operation of an incinerator in a manner such that it produces visible air contaminants which have an appearance, density, or shade equal to or darker than Number 2 on the Ringelmann Chart, or forty (40) percent opacity; except that visible air contaminants which have an appearance, density or shade not darker than Number 3 on the Ringelmann Chart, or sixty (60) percent opacity, may be emitted for a period or periods aggregating not more than three (3) minutes in any sixty (60) minute period during an operation breakdown or during the cleaning of air pollution control equipment.

CHAPTER 5
EXCEPTIONS

5.1 (455B) Exceptions due to maintenance or breakdowns.

1. Maintenance of power or heating plant. When building a new fire, when manually cleaning a fire, or when blowing tubes and flues in a power plant, heating plant or domestic heating plant, visible air contaminants of an appearance, density or shade equal to or darker than that designated as Number 2 on the Ringelmann Chart, or 40 percent opacity, may be emitted into the atmosphere for a period or periods aggregating not more than six minutes in any 60-minute period.

2. Cleaning of pollution control equipment. When cleaning pollution control equipment which does not require a shutdown of equipment, particulate matter may be emitted in excess of the limitations specified in chapter 4 for a period or periods aggregating not more than six minutes in any 60-minute period.

3. Repair or maintenance. Abnormal conditions, breakdown or emergency maintenance of pollution control equipment or related operating equipment, which causes emissions in excess of the limitations specified in chapter 4 shall not be deemed violations provided that the provisions specified in paragraphs "a" and "b" below, are followed.

   a. Report of conditions. The person responsible for the equipment causing such emissions shall notify the Executive Director by the next regular working day of the department.

   b. Action to correct condition. The person responsible for such equipment causing such emissions shall, with all practicable speed, initiate and complete appropriate reasonable action

      1. To correct the conditions causing emissions to exceed said limits,

      2. To reduce the frequency of occurrence of such conditions,

      3. To minimize the amount by which said limits are exceeded, and

      4. To reduce the length of time for which said limits are exceeded;

   and shall submit to the Executive Director at his request, a full report of such occurrence, including a statement of all known causes, and of the scheduling and the nature of the actions to be taken pursuant to these rules.

CHAPTER 6
CIRCUMVENTION OF RULES AND REGULATIONS

6.1 (136B) Circumvention of rules and regulations.

1. Circumvention prohibited. No person shall build, erect, install, or use any article, machine, equipment, or other contrivance which, without resulting in a reduction in the total amount of air contaminants released to the atmosphere, reduces or controls an emission which would otherwise constitute violation of these rules and regulations.

CHAPTER 7
MEASUREMENT OF EMISSIONS

7.1 (455B) Testing and sampling of new and existing equipment

1. Tests by owner. The owner of new or existing equipment or his authorized agent shall notify the Executive Director in writing,

not less than ten days before a test is to be made of an installation. Such notice shall include the time, the place and the name of the person who will conduct the tests to determine if such equipment is meeting the applicable emission standards specified in chapter 4. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the Executive Director.

2. Tests by department. Representatives of the department may conduct separate and additional air contaminant emission tests of an installation on behalf of the state and at the expense of the state. Sampling holes, safe scaffolding and pertinent allied facilities, but not instruments or sensing devices, as needed shall be requested in writing by the Executive Director and shall be provided by and at the expense of the owner of the installation at such points as specified in the request. The owner shall provide a suitable power source to the point or points of testing so that sampling instruments can be operated as required. Analytical results shall be furnished to the owner.

3. Methods and procedures. Stack sampling and analytical determinations to evaluate compliance with these rules shall be made in accordance with methods and procedures acceptable to the commission.

CHAPTER 8
PREVENTION OF AIR POLLUTION EMERGENCY EPISODES

8.1 (136B) General.

1. Purpose. The provisions of this chapter are designed to prevent the excessive buildup of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

8.2 (136B) Episode Criteria.

1. Evaluation. Conditions justifying the proclamation of an air pollution alert, air pollution warning, or air pollution emergency shall be deemed to exist whenever the Commission, its Technical Secretary, or the Commissioner determines that the meteorological conditions are such that the accumulation of air contaminants in any place is reaching, or has reached, levels which could, if sustained or exceeded, lead to a substantial threat to the health of persons.

a. Air pollution forecast. Initial consideration of air pollution episode activities will be activated by receipt from the National Weather Service of an air pollution forecast. Receipt of such a forecast shall be the basis for activities such as, but not limited to, increased monitoring of air contaminants in the area involved.

2. Declaration. In making determinations for the declaration of an air pollution episode condition, the Commission, its Technical Secretary, or the Commissioner will be guided by the criteria stated in the following paragraphs.

a. Air pollution alert. An alert will be declared when any one of the following levels is reached at any monitoring site, and when meteorological conditions are such that the contaminant concentrations can be expected to remain at those levels for twelve (12) or more hours, or increase, unless control actions are taken.

1. Sulfur dioxide - 800 micrograms per cubic meter (0.3 ppm), 24-hour average.

2. Particulate matter - 3.0 COH or 375 micrograms per cubic meter, 24-hour average.

3. Sulfur dioxide and particulate matter combined - product of ppm sulfur dioxide (24-hour average) and COH equal to 0.2, or product of micrograms sulfur dioxide per cubic meter (24-hour average) and micrograms particulate matter per cubic meter (24-hour average) equal to 65,000.

4. Carbon monoxide - 17 milligrams per cubic meter (15 ppm), 8-hour average.

5. Oxidants (ozone) - 200 micrograms per cubic meter (0.1 ppm), 1-hour average.

6. Nitrogen dioxide - 1,130 micrograms per cubic meter (0.6 ppm) 1-hour average, or 282 micrograms per cubic meter (0.15 ppm),24-hour average.

b. Air pollution warning. A warning will be declared when any one of the following levels is reached at any monitoring site and when meteorological conditions are such that the contaminant concentrations can be expected to remain at those levels for twelve (12) or more hours, or increase, unless control actions are taken.

1. Sulfur dioxide - 1,600 micrograms per cubic meter (0.6 ppm), 24-hour average.

2. Particulate matter - 5.0 COH or 625 micrograms per cubic meter, 24-hour average.

3. Sulfur dioxide and particulate matter combined - product of ppm sulfur dioxide (24-hour average) and COH equal to 0.8, or product of micrograms sulfur dioxide per cubic meter (24-hour average) and micrograms particulate matter per cubic meter (24-hour average) equal to 261,000.

4. Carbon monoxide - 34 milligrams per cubic meter (30 ppm), 8-hour average.

5. Oxidants (ozone) - 800 micrograms per cubic meter (0.4 ppm), 1-hour average.

6. Nitrogen dioxide - 2,260 micrograms per cubic meter (1.2 ppm), 1-hour average, or 565 micrograms per cubic meter (0.3 ppm), 24-hour average.

c. Air pollution emergency. An emergency will be declared when any one of the following levels is reached at any monitoring site, and when meteorological conditions are such that this condition can be expected to continue for twelve (12) or more hours.

1. Sulfur dioxide - 2,100 micrograms per cubic meter (0.8 ppm), 24-hour average.

2. Particulate matter - 7.0 COH or 875 micrograms per cubic meter, 24-hour average.

3. Sulfur dioxide and particulate matter combined - product of ppm sulfur dioxide (24-hour average) and COH equal to 1.2 or product of micrograms sulfur dioxide per cubic meter (24-hour average) and micrograms particulate matter per cubic meter (24-hour average) equal to 393,000.

4. Carbon monoxide - 46 milligrams per cubic meter (40 ppm), 8-hour average.

5. Oxidants (ozone) - 1,200 micrograms per cubic meter (0.6 ppm), 1-hour average.

6. Nitrogen dioxide - 3,000 micrograms per cubic meter (1.6 ppm), 1-hour average, or 750 micrograms per cubic meter (0.4 ppm), 24-hour average.

d. Termination. Once declared, any status reached by application of these criteria will remain in effect until the criteria for that level are no longer met. As meteorological factors and air contaminants change, an appropriate change in episode level will be declared.

400-8.3 (455B) Preplanned abatement strategies.

1. Planned strategies. Standby plans shall be designed to reduce or to eliminate emissions of air contaminants in accordance with the objectives set forth in Tables III-V, which are made a part of this chapter.

   a. Plan preparation. Any person responsible for the operation of a source of air contaminants as set forth in Tables III-V shall prepare standby plans for reducing the emission of air contaminants, which shall be implemented upon the declaration of an air pollution episode and continued for the duration of the declared episode.

      Any person responsible for the operation of a source of air contaminants not set forth under this paragraph shall, when requested by the executive director in writing, prepare standby plans for reducing the emission of such air contaminant or contaminants during the periods of an air pollution episode, as specified in this chapter.

   b. Plan content. Standby plans as required under this subrule shall be in writing. Each standby plan shall identify the sources of air contaminants, the approximate amount of reduction of contaminants and a brief description of the manner in which the reduction will be achieved during an air pollution alert, air pollution warning or air pollution emergency, as specified in this chapter.

   c. Review of plans. Standby plans as required by this subrule shall be submitted to the executive director on or before January 1, 1973. Each standby plan shall be subject to review. If, in the opinion of the commission, a standby plan does not provide for adequate reduction of emissions, the commission may disapprove such plan, state the reasons for disapproval and order the preparation of an amended standby plan within a time period specified in the order.

   d. Availability. During a declared air pollution episode, standby plans as required by this subrule shall be made available on the premises to any person authorized to enforce applicable rules.

2. Reserved.

400-8.4 (455B) Actions during episodes.

1. Emission reduction activities. Any person responsible for the operation of a source of air contaminants as set forth in Tables III-V, herein, which is located within the area involved, shall follow the actions specified below during periods of an air pollution alert, air pollution warning or air pollution emergency as may be declared.

   a. Air pollution alert. When an air pollution alert has been declared, all persons in the area involved responsible for the operation of a source of air contaminants as set forth in Table III herein, shall take all air pollution alert actions as required for such sources of air contaminants, and persons responsible for the operation of specified sources set forth in Table III herein, shall put into effect the preplanned abatement strategy for an air pollution alert.

   b. Air pollution warning. When an air pollution warning has been declared, all persons in the area involved responsible for the operation of a source of air contaminants as set forth in Table IV herein, shall take all air pollution warning actions as required for such sources of air contaminants, and persons responsible for the operation of specific sources set forth in Table IV herein, shall put into effect the preplanned abatement strategy for an air pollution warning.

   c. Air pollution emergency. When an air pollution emergency has been declared, all persons in the area involved responsible for the operation of a source of air contaminants as set forth in Table V herein, shall take all air pollution emergency actions as required for such sources of air contaminants, and persons responsible for the operation of specific sources set forth in Table V herein, shall put into effect the preplanned abatement strategy for an air pollution emergency.

   d. Special conditions. When the executive director determines that a specified episode level has been reached at one or more monitoring sites solely because of emissions from a limited number of sources, he shall specify the persons responsible for such sources, that the preplanned abatement strategy of Tables III, IV and V, or the standby plans, are required insofar as they apply to such sources, and such actions shall be put into effect until notified that the criteria of the specified level are no longer met.

2. Reserved.

TABLE III
ABATEMENT STRATEGIES EMISSION REDUCTION ACTIONS ALERT LEVEL

GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m.

3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.

4. Persons operating motor vehicles should eliminate all unnecessary operations.

SOURCE CURTAILMENT

Any person responsible for the operation of a source of air contaminants listed below shall take all required control actions for this alert level.

SOURCE OF AIR POLLUTION

1. Coal- or oil-fired electric power generating facilities.

Control Actions

a. Substantial reduction by utilization of fuels having low ash and sulfur content.

b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

c. Substantial reduction by diverting electric power generation to facilities outside of alert level.

2. Coal- and oil-fired process steam generating facilities.

Control Actions

a. Substantial reduction by utilization of fuels having low ash and sulfur content.

b. Maximum utilization of mid-day(12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

c. Substantial reduction of steam load demands consistent with continuing plant operation.

3. Manufacturing industries of the following classifications:

Primary Metals Industry
Petroleum Refining Operations
Chemical Industries
Mineral Processing Industries
Paper and Allied Products
Grain Industry

Control Actions

a. Substantial reduction of air contaminants from manufacturing operations by curtailing, postponing or deferring production and all operation.

b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gas vapors or malodorous substances.

c. Maximum reduction of heat load demands for processing.

d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

TABLE IV
ABATEMENT STRATEGIES EMISSION REDUCTION ACTIONS WARNING LEVEL

GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste or liquid waste shall be prohibited.

3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.

4. Persons operating motor vehicles must reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operation.

SOURCE CURTAILMENT

Any person responsible for the operation of a source of air contaminants listed below shall take all required control actions for this warning level.

SOURCE OF AIR POLLUTION

1. Coal- or oil-fired electric power generating facilities.

Control Actions

a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.

b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

c. Maximum reduction by diverting electric power generation to facilities outside of warning area.

2. Oil and oil-fired process steam generating facilities.

Control Actions

a. Maximum reduction by utilization of fuels having the lowest available ash and sulfur content.

b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

c. Making ready for use a plan of action to be taken if an emergency develops.

3. Manufacturing industries which require considerable lead time for shutdown include the following classifications:

Petroleum Refining
Chemical Industries
Primary Metals Industries
Glass Industries
Paper and Allied Products

Control Actions

a. Maximum reduction of air contaminants from manufacturing operations by, if necessary, assuming reasonable economic hardships by postponing production and allied operation.

b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors or malodorous substances.

c. Maximum reduction of heat load demands for processing.

d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

4. Manufacturing industries which require relatively short lead times for shutdown including the following classifications:

Primary Metals Industries
Chemical Industries
Mineral Processing Industries
Grain Industry

Control Actions

a. Elimination of air contaminants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.

b. Elimination of air contaminants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances.

c. Maximum reduction of heat load demands for processing.

d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

TABLE V
ABATEMENT STRATEGIES EMISSION REDUCTION ACTIONS
EMERGENCY LEVEL

GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.

2. The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited.

3. All places of employment described below shall immediately cease operations:

a. Mining and quarrying of nonmetallic minerals.

b. All construction work except that which must proceed to avoid emergent physical harm.

c. All manufacturing establishments except those required to have in force an air pollution emergency plan.

d. All wholesale trade establishments: i.e., places of business primarily engaged in selling merchandise to retailers or industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies, except those engaged in the distribution of drugs, surgical supplies, and food.

e. All offices of local, county and state government including authorities, joint meetings and other public bodies excepting such agencies which are determined by the chief administrative officer of local, county or state government, authorities, joint meetings and other public bodies to be vital for public safety and welfare and the enforcement of the provisions of this order.

f. All retail trade establishments except pharmacies, surgical supply distributors and stores primarily engaged in the sale of food.

g. Banks, credit agencies other than banks, securities and commodities brokers, dealers, exchanges and services; offices of insurance carriers,agents and brokers, real estate offices.

h. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments, photographic studios, beauty shops, barber shops, shoe repair shops.

i. Advertising offices, consumer credit reporting, adjustment and collection agencies, duplicating, addressing, blueprinting, photocopying, mailing, mailing list and stenographic services, equipment rental services, commercial testing laboratories.

j. Automobile repair, automobile services, garages.

k. Establishments rendering amusement and recreational services including motion picture theaters.

l. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools and public and private libraries.

4. All commercial and manufacturing establishments not included in this order will institute such actions as will result in maximum reduction of air contaminants from their operation by ceasing, curtailing or postponing operations which emit air pollutants to the extent possible without causing injury to persons or damage to equipment.

5. The use of motor vehicles is prohibited except in emergencies with the approval of local or state police.

SOURCE CURTAILMENT

Any person responsible for the operation of a source of air contaminants listed below shall take all required control actions for this emergency level.

SOURCE OF AIR POLLUTION

1. Coal- or oil-fired electric power generating facilities.

Control Actions

a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.

b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

c. Maximum reduction by diverting electric power generation to facilities outside of emergency area.

2. Coal- and oil-fired process steam generating facilities.

Control Actions

a. Maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage.

b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

c. Taking the action called for in the emergency plan.

3. Manufacturing industries of the following classifications:

Primary Metals Industries
Petroleum Refining
Chemical Industries
Mineral Processing Industries
Grain Industry
Paper and Allied Products

Control Actions

a. Elimination of air contaminants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.

b. Elimination of air contaminants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances.

c. Maximum reduction of heat load demands for processing.

d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

These rules are intended to implement chapter 455B, Code 1975. (Filed August 24, 1970; amended May 2, 1972, December 11, 1973, December 17, 1974.)

CHAPTER 9
CERTIFICATE OF ACCEPTANCE

9.1 (136B) General.

1. Purpose. Political subdivisions shall meet the conditions specified in this chapter if they intend to secure acceptance of the local air pollution control program and to obtain a Certificate of Acceptance from the Commission, as provided in Section 136B.15, Code of Iowa, 1971.

2. Limitation. When a Certificate of Acceptance is issued to a political subdivision, the Commission retains authority to take emergency action as provided in paragraph five (5) of Section 136B.9, Code of Iowa, 1971.

9.2 (136B) Certificate of Acceptance.

1. Application for Certificate. The governing body of a political subdivision may make application for a Certificate of Acceptance.

   a. Forms. Each application for a Certificate of Acceptance shall be submitted to the Technical Secretary on the form "Application for a Certificate of Acceptance of Local Air Pollution Control Program". Application forms will be available at the Department.

2. Processing of applications. The Technical Secretary shall make an investigation of the program covered by an application for a Certificate of Acceptance to evaluate conformance with applicable provisions of Section 136B.15, Code of Iowa, 1971, as soon as practicable.

   a. Granting of Certificate. A Certificate of Acceptance may be granted by the Commission upon receipt of an affirmative recommendation from the Technical Secretary, or upon favorable action following a hearing on the application.

   b. Review of program. When a Certificate of Acceptance has been granted for a local air pollution control program, the Commission shall provide for a review of the program activities at such intervals as they may prescribe, for evaluation of the continuation of the Certificate. Following such review, the Commission may continue the Certificate in effect, or suspend the Certificate.

      1. Suspension of Certificate. If the Commission determines at any time that a local air pollution control program is being conducted in a manner which is not consistent with the factors described herein, a notice to the political subdivision shall be provided setting forth the deviations from the standards prescribed herein. Such notice shall include a listing of the corrective measures that are to be completed within a specified period of time. If the Commission finds, after such time period, that the specified corrective action has not been completed, the Commission shall suspend the Certificate of Acceptance, and resume administration of the regulatory provisions of the statute in the political subdivision. Suspension of a Certificate shall be without prejudice to the right of the applicant for requesting a hearing before the Commission.

      2. Reinstatement of Certificate. If the Commission shall receive evidence that is deemed to indicate correction of the deviations from the standards, a suspended Certificate of Acceptance shall be reinstated upon the request of the political subdivision involved. Upon reinstatement of a Certificate, the political subdivision shall resume the regulatory functions of the program.

9.3 (136B) Ordinance or Regulations.

1. Legal aspects. Each local control program considered for a Certificate of Acceptance shall be conducted under an appropriate ordinance or set of regulations.

a. Definitions. The definition of air pollution included in the ordinance or regulations shall be consistent with that specified in paragraph three (3), Section 136B.2, Code of Iowa, 1971.

1. The other definitions included in the ordinance or regulations shall be consistent with those specified in Chapter 1 of these rules and regulations.

2. Legal authority. The ordinance or regulations shall provide authority to the local control agency as follows:

a. Scope of control. Authority and responsibility for air pollution control within the entire area included in the jurisdiction involved.

b. Degree of control. Authority to prevent, abate, and control air pollution from all sources within its area of jurisdiction, in accordance with requirements consistent with, or more strict than, the provisions specified in these rules and regulations.

c. Enforcement. Legal authority to enforce its requirements and standards.

d. Inspection and tests. Legal authority to make inspections, perform emission tests, and obtain data, reports, or other information relating to sources of air pollution which may be necessary to prepare air contaminant emission inventories, and to evaluate control measures needed to meet specified goals.

3. Control of air pollution. The ordinance or regulations shall contain provisions applicable to the control or prohibition of emissions of air contaminants as listed below.

a. Emission control. Requirements specifying maximum concentrations, density, or rates of discharge of emissions of air contaminants from specific sources.

1. These requirements may be included in the ordinance or regulations, or in standards adopted by the local control agency under the authority granted by such ordinance or regulations.

2. These requirements shall not establish an emission standard for any specific source that is in excess of the emission standard specified in Chapter 4 of these rules and regulations for that source. However, these require-

ments may establish an emission standard for any specific source that is more strict than the emission standard specified in Chapter 4 of these rules and regulations for that source.

b. Prohibition of emissions. Provisions prohibiting the installation of equipment having a potential for air pollution without adequate control equipment.

1. Such restriction may be included in the building code applicable to the jurisdiction covered by the local control agency.

c. Open burning. Provisions prohibiting open burning, including backyard burning, in urban areas within the jurisdiction of the local control agency.

1. Provisions relating to backyard burning may consist of a program requiring the prohibition of such burning within a reasonable period of time.

2. Provisions applicable to open burning may include a variance procedure.

d. Requirements for permits. Provisions requiring installation and operating permits for all new or altered equipment capable of emitting air contaminants into the atmosphere installed within the jurisdiction of the local control agency.

4. Enforcement. The ordinance or regulations of the local control agency shall include an effective mechanism for enforcing the provisions specified thereunder, as listed below.

a. Procedures. The local control ordinance or regulations shall specify that any violation of its provisions are subject to civil and criminal penalties.

b. Penalties. The penalties specified in such ordinance or regulations shall include fines, injunctive relief, and sealing of equipment found to be not in compliance with applicable provisions of the ordinance or regulations.

1. Fines consistent with the applicable provisions of Section 136B.16, Code of Iowa, 1971, shall be specified.

c. Variances. A procedure for granting variances, or extensions of time to attain compliance status, providing that the authority to grant such variance or extension of time shall not be allocated to any administrative officer of the local control agency.

1. The local control agency shall maintain on file a record of the names, addresses, sources of emissions, types of emissions, rates of emissions, reason for granting, conditions, and length of time specified, relating to all variances or extension of time granted; and shall make such records available to the Commission or the Department upon request.

9.4 (136B) Administrative Organization.

1. Administrative facilities. Each local control program considered for a Certificate of Acceptance shall have the administrative facilities necessary for effective operation of such program including, but not limited to, those listed below.

a. Agency. Designation of a legally constituted body within the organizational structure of the applicable political subdivision, or combination of political subdivisions, as the administrative authority for the local control program.

b. Procedures. Adoption of definite administrative procedures for developing, promulgating, and enforcing requirements and standards for air pollution control within the jurisdiction of the local control agency.

c. Staff. Employment of a technical and clerical staff deemed adequate to conduct the air pollution control activities included in the local control program.

1. Key technical staff personnel shall have received training or experience in air quality management program procedures.

2. At least one member of the technical staff shall be assigned full-time duty in the operation of the local control program.

2. Financial support. Each local control program considered for a Certificate of Acceptance shall have adequate financial support for the operation of effective program activities.

3. Physical facilities. Each local control program considered for a Certificate of Acceptance shall have the physical facilities necessary for the operation of effective program activities, including those listed below.

   a. Office space. Sufficient office space and equipment to accommodate the members of the technical and clerical staff.

   b. Laboratory facilities. The laboratory space and equipment shall be adequate for the effective exercise of the specific functions required in the operation of the local control program.

   c. Transportation facilities. These facilities shall include provisions for transportation of personnel to service air monitoring equipment, visits to sources of emissions for investigative purposes, and other appropriate program activities.

9.5 (136B) Program Activities.

1. Control program. Each local control program considered for a Certificate of Acceptance shall conduct air pollution control activities adequate to provide adequate control of air pollution within the jurisdiction of the local control program, including, but not limited to, those listed below. In conducting these program activities, the local control agency shall make every effort to meet the specified ambient air quality objectives applicable to the State of Iowa.

   a. Evaluation of problems. Determination of the actual and potential air pollution problems within the jurisdiction of the local control agency, and comparison of the present air quality in that jurisdiction with the air quality standards and objectives promulgated for this State.

      1. The air quality within the jurisdiction shall be determined by an air monitoring program, using sampling techniques and laboratory determinations compatible with those used in the air pollution control program of this State. The air monitoring program of the local control agency shall give attention to the air contaminants considered to be indices of pollution in this State.

      2. The current emissions of significant air contaminants from sources located within the jurisdiction of the local control agency shall be determined through an emissions inventory. The data collected should be used to determine the levels of air contaminant emissions appropriate

to achieve or maintain the levels specified in air quality goals or objectives, and to calculate the reductions in emissions inventory to meet those goals or objectives.

b. Control Activities. Conducting of activities to abate or control emissions of air contaminants from existing equipment or from new or altered equipment located within the jurisdiction of the local control agency.

1. A program of plant inspections shall be conducted with respect to control of emissions from existing equipment. These activities should include the collection of data related to the types of emissions and the rate of discharge of emissions from each source involved, along with stack sampling when deemed appropriate.

2. Procedures for plan review and the issuing of permits relating to the installation, or alteration such that the emission of air contaminants is significantly altered, shall be conducted with respect to control of emissions from new or altered sources. These procedures may include provisions for permits relating to the use of the equipment involved.

CHAPTER 10
AMBIENT AIR QUALITY STANDARDS

10.1 (455B) State-wide Standards.

The state of Iowa Ambient Air Quality Standards shall be the National Primary and Secondary Ambient Air Quality Standards as published in 40 Code of Federal Regulations Part 50 (1972) and as amended at 38 Federal Register 22384 (September 14, 1973), 43 Federal Register 46258 (October 5, 1978), and 44 Federal Register 8202 (February 9, 1979).